



PATENT

18w

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE APPLICATION OF:

REBECCA CAHOON ET AL.

CASE NO.: BB1159USDIV

APPLICATION NO.: 10/660226

CONFIRMATION NO.:

GROUP ART UNIT: 1638

EXAMINER: UNKNOWN

FILED: SEPTEMBER 11, 2003

FOR: CHORISMATE BIOSYNTHESIS ENZYMES

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with 37 CFR 1.97 and 1.98, Applicants bring to the attention of the U.S. Patent and Trademark Office information listed on the enclosed PTO-1449 and PTO-892 Forms.

Benefit of the earlier filing date of U.S. Patent Application No. 09/354,501, filed July 16, 1999 is claimed under 35 U.S.C. 120 for the above-referenced application and only copies of information not previously made of record in the parent are enclosed.

Should any fee be required in connection with the filing of this Information Disclosure Statement, please charge such fee to Deposit Account No. 04-1928 (E. I. du Pont de Nemours and Company).

Respectfully submitted,

Maria Restrepo-Hartwig

MARIA RESTREPO-HARTWIG
AGENT FOR APPLICANTS

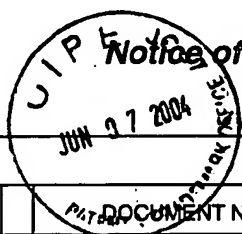
Registration No.: 52,163

Telephone: (302) 695-3129

Facsimile: (302) 892-1026

Dated: June 1, 2004

Enclosures



Notice of References Cited

Application No.
09/354501

Applicant(s)
Cahoon et al.

Examiner
P Bui

Group Art Unit
1638

Page 1 of 1

U.S. PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS
	A					
	B					
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
	N						
	O						
	P						
	Q						
	R						
	S						
	T						

NON-PATENT DOCUMENTS

*		DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
	U	Lazar et al. Molecular and Cellular Biology. March 1988, Vol. 8, No. 3, p.1247-1252	3/88
	V	Burgess et al. The Journal of Cell Biology, 1990, Vol. 111, p. 2129-2138	1990
	W	Broun et al. Science, 13 Nov 1998, Vol. 282, p 131-133	11/98
	X	Bork. Genome Research, 2000, Vol. 10, p. 398-400.	2000

* A copy of this reference is not being furnished with this Office action.
(See Manual of Patent Examining Procedure, Section 707.05(a).)

+

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	1
-------	---	----	---

Complete If Known

Application Number	09/354,501
Filing Date	July 16, 1999
First Named Inventor	Rebecca E. Cahoon et al.
Group Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	BB1159C

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

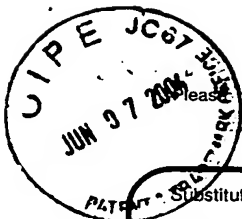
**Examiner
Signature**

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231



Please type a plus sign (+) inside this box →



PTO/SB/08B(08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 1

Complete if Known

Application Number	09/354,501
Filing Date	July 16, 1999
First Named Inventor	Rebecca E. Cahoon et al.
Group Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	BB1159C

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		EMBL SEQUENCE LIBRARY DATA ACCESSION NO: Y14797, 09-12-97, WIND, J.C. ET AL., Three differentially expressed 3-deoxy-D-arabino-heptulosonate 7-phosphate synthase genes in Morinda citrifolia	
		WILLIAM E. DYER ET AL., Journ. of Biol. Chem., 265:1608-1614, 1990, a cDNA Encoding 3-Deoxy-D-arabino-heptulosonate 7-Phosphate Synthase from Solanum tuberosum L.	
		EMBL SEQUENCE LIBRARY DATA ACCESSION NO: AF012864, 09-11-97, BATZ, O. ET AL., Extensive reprogramming of cellular metabolism by fungal elicitor or infection in parsley suggests a new perception of 'defense-related' genes	
		JORN GORLACH ET AL., Plant Mol. Biol., vol. 23:697-807, 1993, Differential expression of tomato (Lycopersicon esculentum L.) genes encoding shikimate pathway isoenzymes. I. 3-Deoxy-D-arabino-heptulosonate 7-phosphate synthase	
		JAMES D. JONES ET AL., Plant Phys., vol. 108(4):1413-1421, 1995, Impaired Wound Induction of 3-Deoxy-D-arabino-heptulosonate-7-phosphate (DAHP) Synthase and Altered Stem Development in Transgenic Potato Plants Expressing a DAHP Synthase Antisense Construct	
		EMBL SEQUENCE LIBRARY DATA ACCESSION NO: A1671182, 05-25-99, WALBOT, V., Maize ESTs from various cDNA libraries sequenced at Stanford University	
		EMBL SEQUENCE LIBRARY DATA ACCESSION NO: A1615213, 04-26-99, WALBOT, V., Maize ESTs from various cDNA libraries sequenced at Stanford University	
		EMBL SEQUENCE LIBRARY DATA ACCESSION NO: A1443687, 03-16-99, SHOEMAKER, R. ET AL., Public Soybean EST Project	
		EMBL SEQUENCE LIBRARY DATA ACCESSION NO: AU068686, 06-07-99, SASAKI, T. ET AL., Rice cDNA from callus	
		KLAUS M. HERRMANN, Plant Phys., vol. 107:7-12, 1995, The Shikimate Pathway as an Entry to Aromatic Secondary Metabolism	

Examiner
Signature

Date
Considered

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Form PTO-1449
(Reproduced)

**INFORMATION DISCLOSURE CITATION
IN AN APPLICATION**
(Use several sheets if necessary)

Docket Number (Optional)

BB1159 USNA

Application Number

09/354,501

Applicant

REBECCA E. CAHOON ET AL.

Filing Date

JULY 16, 1999

Group Art Unit

UNKNOWN**U. S. PATENT DOCUMENTS**

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,187,071 A	2/16/93	Fischer et al.	435	32	

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
					YES	NO
EP 0 608 722 A	8/3/94	Europe				
EP 0 832 978 A	4/1/98	Europe				
WO 95 33843 A	12/14/95	World				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Lim, C.O. et al., 7/11/94, Genbank Accession No. L33595
	Lim, C.O. et al., 7/13/94, Genbank Accession No. L33595.1
	Newman, T. et al., 9/11/97, Genbank Accession No. AA586083
	Newman, T. et al., 9/13/97, Genbank Accession No. AA586083.1
	Millar, G. et al., - 5/86, The complete amino acid sequence of 3-dehydroquinate synthase of Escherichia coli K12", FEBS Lett., 200(1):11-17
	Millar, G. et al., National Center for Biotechnology Information General Identifier No. 114181, 5/30/00
	Martin, P.R. et al., Swiss-Prot Accession No. P34002 - 2/1/94
	Nikolaides, N. et al., Tetrahedron Letters, Design and Synthesis of Substrate Analogs for the Inhibition of Dehydroquinate Synthase", vol. 30(12):1461-1464, 1989
	Frost, J. W. et al., Biochemistry, Dehydroquinate Synthase from Escherichia coli: Purification, Cloning, and Construction of Overproducers of the Enzyme", vol. 23:4470-4475, 1984
	Pompliano, D.L. et al., J. Am. Chem. Soc., Probing Lethal Metabolic Perturbations in Plants with Chemical Inhibition of Dehydroquinate Synthase, vol. 111:1866-1871, 1989
	Mccombie, W. R., 7/24/98, Genbank Accession No. AI065473
	Schutz, K. et al., 7/27/98, Genbank Accession No. AI065473.1
	Walbot, V. et al., 4/27/99, Genbank Accession No. AI637200
	Sasaki, T. - 3/31/99, Genbank Accession No. AU056551
	Bischoff, M. et al., Plant Molecular Biology, Cloning of a cDNA encoding a 3-dehydroquinate synthase from a higher plant, and analysis of the organ-specific and elicitor-induced expression of the corresponding gene", vol. 31:69-76, 1996

EXAMINER

DATE CONSIDERED

BB1159C

09/354,501

(Use several sheets if necessary)

REBECCA E. CAHOON ET AL.

JULY 16, 1999

UNKNOWN

~~EXAMINER~~
~~INITIALS~~

DOCUMENT NUMBER

DATE _____

NAME _____

CLASS

SUBCLASS

FILING DATE
IF APPROPRIATE

DOCUMENT NUMBER

DATE _____

COUNTRY

CLASS

SUB-
CLASS

TRANSLATION	
YES	NO

WO 98 03661 A

1/29/98

World

Gorlach, J. et al., Plant Molecular Biology, vol. 23, no. 4, (1993), pgs. 707-716

Schaller, A. et al., Journal of Biological Chemistry, vol. 266, no. 32 (1991) pgs. 21434-21438

Database EMBL: C72774 (1997), Yamamoto K and Sasaki T – XP002120079

Database EMBL: AA750226 (1998), Nahm B H et al., - XP002131647

Bornemann S et al., Journal of Bio. Chem., vol. 270, no. 39 (1995) pgs. 22811-22815

Database EMBL: AI731017 (1999), Blewitt M. et al., - XP002131648

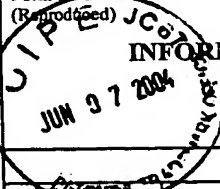
Database EMBL: AI728073 (1999), Blewitt M et al., - XP002131649

Database EMBL: AI489566 (1999), Alcala J. et al. – XP002131650

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449
(Reproduced)
**INFORMATION DISCLOSURE CITATION
IN AN APPLICATION**
(Use several sheets if necessary)

Docket Number (Optional)

BB1159C

Application Number

09/354,501

Applicant

REBECCA E. CAHOON ET AL.

Filing Date

JULY 16, 1999

Group Art Unit

UNKNOWN**U. S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
					YES	NO

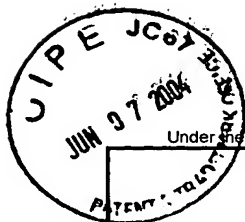
OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	Deka et al. (1994) FEBS Lett. 349:397-402
	Bonner and Jensen (1994) Biochem J. 302:11-14
	Kaneko (1996) DNA Res. 3:109-136
	Schmid et al. 91992) Plant J. 2:375-383
	NCBI General Identifier No. 3169883
	NCBI General Identifier No. 4417286
	NCBI General Identifier No. 3608138
	NCBI General Identifier No. 114200
	NCBI General Identifier No. 4688475
	NCBI General Identifier No. 3768703
	Mitsuhashi and Davis (1954) Biochim. Biophys. Acta 15:54-61
	Koshiha (1978) Biochim. Biophys. Acta 522:10-18
	Chaudhuri et al., (1987) Methods Enzymol. 143:320-324
	Balinsky and Davis (1961) Biochem. J. 80:292-296
	Lumsden and Coggins (1977) Biochem J. 161:599-607
	De Feyter (1987) Methods Enzymol. 142:355-361
	Bowen and Kosuge (1979) Plant Physiol. 64:382-386
	Smith and Coggins (1983) Biochem. J. 213:405-413

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Certificate of Mailing under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on June 4, 2003
Date

Melissa McCullin
Signature

MELISSA MCCULLIN

Typed or printed name of person signing Certificate

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

10/660226
BB1159USDIV
INFORMATION DISCLOSURE STATEMENT
PTO-892 FORM (1)
PTO/SB/08 FORMS (2)
PTO-1449 FORMS (3)
POSTCARD